

**COMPRESSOR CAPACITY MODULATION****Abstract Of The Disclosure**

A pulsed modulated capacity modulation system for refrigeration, air conditioning or other types of compressors is disclosed in which suitable valving is provided which operates to cyclically block flow of suction gas to a compressor. A control system is provided which is adapted to control both the frequency of cycling as well as the relative duration of the on and off time periods of each cycle in accordance with sensed system operating conditions so as to maximize the efficiency of the system. Preferably the cycle time will be substantially less than the time constant of the load and will enable substantially continuously variable capacity modulation from substantially zero capacity to the full capacity of the compressor. Additional controls may be incorporated to modify one or more of the motor operating parameters to improve the efficiency of the motor during periods of reduced load.

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